

Recombinant human PIGF-1/PGF protein

Catalog Number: ATGP4140

PRODUCT INFORMATION

Expression system

HEK293

Domain

19-149 aa

UniProt No.

P49763-2

NCBI Accession No.

NP_001193941.1

Alternative Names

Placenta growth factor, PIGF, PGF, PGFL, PLGF, placenta growth factor isoform 2

PRODUCT SPECIFICATION

Molecular Weight

15.5kDa (137aa)

Concentration

0.5mg/ml (determined by Bradford assay)

Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

Purity

> 90% by SDS-PAGE

Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

Biological Activity

Measured by its binding ability in a functional ELISA with Human VEGFR1/Flt-1 (CAT# ATGP4101).

Tag

His-Tag

Application

SDS-PAGE, Bioactivity

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

Placenta growth factor (PIGF/PGF) is a member of the PDGF/VEGF-sub-family - a key molecule in angiogenesis

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and vasculogenesis, in particular during embryogenesis. There are three isoforms of this protein: PIGF-1, PIGF-2, PIGF-3. PIGF-2 is only found in early placenta up until the 8th week of development, while PIGF-1 is specifically found in the colon as well as mammary carcinomas. PIGF induces monocyte activation, migration, and production of inflammatory cytokines and VEGF. Also, PIGF is ultimately associated with angiogenesis. These activities facilitate wound, bone fracture, and cardiac repair, but also contribute to inflammation in active sickle cell disease and atherosclerosis. Recombinant human PIGF-1/PGF, fused to His-tag at C-terminus, was expressed in HEK293 cell and purified by using conventional chromatography techniques.

Amino acid Sequence

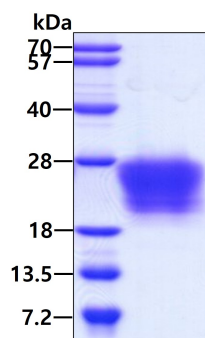
LPVAPPQWA LSAGNGSSEV EVVPFQEVWG RSYCRALERL VDVVSEYPSE VEHMFSPSCV SLLRCTGCCG DENLHCVPVE TANVTMQLLK IRSGDRPSYV ELTFSQHVRC ECRPLREKMK PERCGDAVPR R<HHHHHH>

General References

- Hauser, S. and H.A. Weich (1993) Growth Factors. 9:259-268.
- Maglione, D., et al, (1993) Oncogene. 8:925-931.
- Roncal, C., et al, (2010) Cardiovasc. Res. 86:29-36.

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain

Biological Activity

Human PGF/PLGF-1 is coated at 2 ug/ml (100 ul/well) can bind Human VEGFR1/Flt-1 (CAT# ATGP4101) in a Functional ELISA assay.

